

Application No.: 10/506,783
Reply dated November 15, 2005
to Office Action of June 15, 2005
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Docket No.: 2360-0419PUS1

AMENDMENTS TO THE DRAWINGS

Attached hereto is one (1) Replacement Drawing Sheet that complies with the provisions of 37 C.F.R. § 1.84. The Replacement Drawing Sheet incorporates the following drawing changes:

In Fig. 3, reference numeral --16.3-- has been added to indicate a monitoring device provided inside a base station 4.

It is respectfully requested that the Replacement Drawing Sheet be approved and made a part of the record of the above-identified application.

REMARKS

Claims 1, 3-8, and 10-12 are pending in the application. Claims 2 and 9 have been canceled.

Amendment to the Drawings

In Fig. 3, reference numeral --16.3-- has been added to indicate a monitoring device provided inside a base station 4. Such a feature is disclosed in page 10, lines 25-26 of the specification as filed.

The Examiner is respectfully requested to approve and enter this drawing change.

Claim Objections

Claim 12 has been objected to because of its improper multiple dependency.

Claim 12 has been amended to overcome this objection.

The Examiner is respectfully requested to reconsider and withdraw this objection.

Claim Rejections – 35 U.S.C. § 102 and § 103

(a) Claims 1 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Mishra et al. (USP 5,805,599).

Further, claims 2, 3, 9, and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mishra et al. in view of Jurkevich et al. (USP 5,164,938). These rejections are respectfully traversed.

Claims 1 and 8 have been amended to include all of the limitations recited in claims 2 and 9, respectively, to overcome these rejections.

Mishra is directed to a channel allocation in a communication network, for example, an ATM network (see col. 1, lines 6-8), where the communication network may also include cellular communication connection technology (see col. 3, lines 5-9). To reduce the wastage of communication resources, the channel allocations are reduced in case a user does not or not completely exploit the allocated resources (see col. 1, line 65 – col. 2, line 2). The factor by which the resource allocation is reduced depends on the transmission rate that is actually achieved by the user. The reduction is effected by applying a decay function that is based on an exponentially smoothed function of the sources' actual transmission rate, smoothed over time, which drives the allocation to an average transmission rate that the user is actually using (see col. 2, lines 8-14).

Therefore, Mishra may determine a utilization factor and to allocate the resources dependency of this utilization factor. In Mishra, however, the determination of the utilization factor is not based on the number of time intervals without or with reduced communication, but is based on a weighted sum of the moving average of the transmission rate and the distance (in time) of two RM (resource-management) cell in the ATM network.

In view of this, Mishra does not determine the utilization factor by detecting "time intervals in which the user does not exploit the transmission capacity allocated to him," as recited in claims 1 and 8.

Jurkevich is directed to a packet switched communication system (see col. 1, lines 25-34). Different types of data (e.g., voice or X0.25 data) are provided with different attributes (priorities), packed in corresponding frames (see col. 4, lines 10-32) and then routed through the network according to the specific data type. The frames have a variable size. The allocation of a single channel (with a fixed size) to a user is done per connection, where the allocation can be reconfigured based on the current network status (see col. 4, lines 44-60). Furthermore, a frame can be filled with channels of different users, where a particular frame only includes channels of users with the same starting and end-point of the data transmission (see col. 5, lines 14-23). If a user does not completely exploit a channel allocated to him, this channel is deleted from the current frame (see col. 4, line 61 – col. 6, line 2). This is called “frame compression” and is the core of the described system together with the frame reconfiguration in dependency of the type and amount of data (see col. 6, lines 13-27) and the so called “bandwidth seizing.”

However, the paragraph to which the Examiner refers (col. 2, lines 39-46) does not relate to this application, but to another publication of the same applicant, namely USP 4,980,886¹. The system described in this patent also describes a packet switched communication network. In contrast to the system described in Jurkevich, a particular user is guaranteed a minimal bandwidth (see col. 2, lines 43-46), where the user can be allocated additional bandwidth if needed (see col. 2, lines 60-69). If a user does not exploit the allocated minimal bandwidth, it can also be allocated to another user (see col. 2, lines 22-55).

¹ An information disclosure statement citing USP 4,980,886 has been submitted with this Reply for Examiner's consideration.

From both of the foregoing documents, identifying time intervals (e.g., time slots) with no or only a reduced data transmission may be known. But, contrary to the claimed invention of the present application, the unused time intervals are not identified in order to calculate a utilization factor that influences the upcoming resource allocations to a user, but they are identified in order to directly allocated them to another user. That is, unlike in the claimed invention, the number of detected "empty" time slots has no influence on the resource allocations to a user for upcoming connections. Accordingly, Jurkevich does not determine a utilization factor by detecting "time intervals in which the user does not exploit the transmission capacity allocated to him," as recited in claims 1 and 8.

Therefore, even assuming, *arguendo*, that Mishra and Jurkevich can be combined, Mishra in view of Jurkevich fails to disclose or even suggest determining the utilization factor "by detecting time intervals in which the user does not exploit the transmission capacity allocated to him" as recited in claims 1 and 8.

Claims 2 and 3, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 4 and 5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mishra et al. and et al. in further view of Eriksson (US Pub. 2003/0103478A1). This rejection is respectfully traversed.

Claims 4 and 5, indirectly dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mishra et al. and et al. in further view of Agin (USP 5,805,599). This rejection is respectfully traversed.

Claim 6, indirectly dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(d) Claims 7 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mishra et al. in view of Zellner et al. (USP 6,069,882). This rejection is respectfully traversed.

Claim 7, variously dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 11, indirectly dependent on claim 8, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

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Conclusion

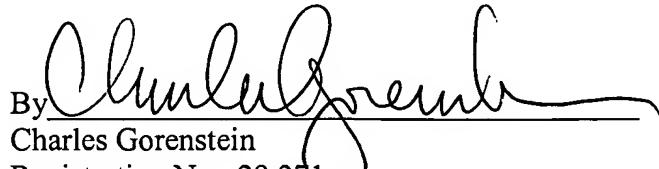
Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachments: One (1) Replacement Drawing Sheet - Fig. 3